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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/821,387

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Seok Jin Han

AB-2916 US

1597

32605

7590

10/07/2008

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EXAMINER

CHOW, YUK

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/821,387	<b>Applicant(s)</b> HAN ET AL.	
	<b>Examiner</b> YUK CHOW	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-17 is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/15/2008</u> .                                              | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objections*

Claim 14 is objected to because of the following informalities: In claim 14, line4 “*different some said*” should be “*different from some of said*”. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Okuno et al. (US 2002/0047923).**

As to **claim 1**, Okuno discloses a method of subpixel rendering input image data onto a display panel, said input image data comprises image data formatted for a first subpixel layout and wherein said display panel comprises a second subpixel layout further comprising a repeating grouping of a plurality of primary colored subpixels and said second subpixel layout is different from said first subpixel layout, the steps of said method comprising:

subpixel rendering input image data that is input at a first clock rate (see Fig. 32(VCLK));

outputting subpixel rendered data to said display panel at a second clock rate (Fig. 32(PCLK)).

As to **claim 2**, Okuno discloses a method of Claim 1 wherein said subpixel repeating group further comprises at least one column in which more than one color primary comprises said column (see [0131]).

As to **claim 3**, Okuno discloses a method of Claim 1 wherein said first clock rate and said second clock rate are the same and dummy data is inserted into said outputted subpixel rendered data (see Fig. 17, d0 and d5 (repeat) were inserted into Enlarged image data).

As to **claim 4**, Okuno discloses a method of Claim 1 wherein said first clock rate and said second clock rate are different (see [0134]).

As to **claim 5**, Okuno discloses a method of Claim 1 wherein said input image data comprises more subpixel data sets (see Fig. 16 (original image data)) for each image frame than said number of subpixel data set (see Fig. 16 (reduced image data)) for each image frame for rendering on said display panel.

As to **claim 6**, Okuno discloses a method of Claim 1 wherein said method further comprises the step of outputting a signal indicating valid output data to the display controller (see [0323]-[0325]).

As to **claim 7**, Okuno discloses a method of subpixel rendering input image data onto a display panel, said input image data comprises image data formatted for a first subpixel layout and wherein said display panel comprises a second subpixel layout further comprising a repeating grouping of a plurality of primary colored subpixels and

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said second subpixel layout is different from said first subpixel layout, the steps of said method comprising:

subpixel rendering input image data that is input at a first clock rate (see Fig. 32(VCLK));

outputting subpixel rendered data to said display panel at a second clock rate (Fig. 32(PCLK)) wherein the output image data is buffered (see [0018]).

As to **claim 8**, Okuno discloses a method of Claim 7 wherein said subpixel repeating group further comprises at least one column in which more than one color primary comprises said column (see [0131]).

As to **claim 9**, Okuno discloses a method of Claim 6 wherein said output image data sent to the display controller does not comprise dummy image data (see fig. 16, no additional data was inserted).

As to **claim 10**, Okuno discloses a method of Claim 6 wherein said first clock rate and said second clock rate are the same (It's well known in the art to use synchronized clock (Official Notice)).

As to **claim 11**, Okuno discloses a method of Claim 6 wherein said first clock rate and said second clock rate are different (see [0134]).

As to **claim 12**, Okuno disclose a method of subpixel rendering input image data onto a display panel, said input image data comprises image data formatted for a first subpixel layout and wherein said display panel comprises a second subpixel layout further comprising a repeating grouping of a plurality of primary colored subpixels and

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said second subpixel layout is different from said first subpixel layout, the steps of said method comprising:

subpixel rendering input image data that is input asynchronously (see [0134]).

outputting subpixel rendered data to said display panel in a format wherein dummy data is inserted into the output data (see Fig. 17, d0 and d5 (repeat) were inserted into Enlarged image data) such that a timing scheme (see Fig. 18) is affected to map said input image data formatted (Fig. 18(H, and Hp)) for said first colored subpixel layout onto data formatted for said second color subpixel layout (See [0178]-[0181]).

As to **claim 13**, Okuno discloses a method of Claim 12 wherein said subpixel repeating group further comprises at least one column in which more than one color primary comprises said column (see [0131]).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

4.

### ***Allowable Subject Matter***

5. Claims 14-17 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: None of the references cited has failed to teach applicants claimed invention

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***“channel formatter....second color subpixel layout”*** ( as recited in claim 14). Claims 15-17 are allowed due to the dependencies of claim 14.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUK CHOW whose telephone number is (571)270-1544. The examiner can normally be reached on 8-6 M-TH E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. C./

Examiner, Art Unit 2629

/Amare Mengistu/

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Supervisory Patent Examiner, Art Unit 2629